REMARKS

The Examiner rejected claims 1-7, 10, 11, 13-16 and 18-33, while withdrawing claims 25-29 from consideration. Claims 25-29 have been cancelled herein without prejudice. Thus, claims 1-7, 10, 11, 13-16, 18-24, and 30-33 are pending.

Claims 4-6, 21, 22, 24, and 30 have been amended herein. Specifically, claims 4-6 have been amended to recite the nucleic acid of claim 3. Claims 21 and 22 have been amended to recite the virion of claim 20. Claims 6 and 24 have been amended to remove perK and hoc. Claims 6 and 24 as well as the specification (at page 13, line 16; and page 20, line 19) have been amended to correct a typographical error in that pmdA should be pndA. A person having ordinary skill in the art would have appreciated that pmdA is a typographical error that should be pndA since (1) page 13, line 22 of Applicants' specification lists antidote pndB, and (2) it was well known that pndB antagonizes the lethality of pndA. See, e.g., Table 1 on page 3413 of Holcik and Iyer, *Microbiology*, 143:3403-3416 (1997). For the Examiner's convenience, a copy of this publication is attached hereto and will be submitted with an Information Disclosure Statement. Claim 30 has been amended to recite a composition.

In addition, the specification has been amended to indicate that this application is a continuation-in-part application of and claims the benefit under 35 U.S.C. § 120 of U.S. Patent Application Serial No. 09/291,902, filed April 14, 1999, now U.S. Patent No. 6,271,359. As stated above, the specification also has been amended at page 13, line 16 and page 20, line 19 to correct a typographical error. Further, the abstract has been replaced with an abstract containing no more than the required maximum number of words. No new matter has been added by these amendments.

In light of these amendments and the following remarks, Applicants respectfully request reconsideration and allowance of claims 1-7, 10, 11, 13-16, 18-24, and 30-33.

Prior art

Applicants acknowledge the Examiner's indication that the pending claims are free of the prior art.

Election/Restriction

The Examiner stated that claims 1-7, 10-11, 13-16, 18-24 and 30-33 have been examined in response to the species election of *chpBK*, *bacterial specific promoter*, and the *anr promoter*. At page 16 of the February 13, 2003 Office Action, the Examiner stated that "[t]he claims are free of the prior art since the prior art did not teach nor fairly suggest recombinant nucleic acid compositions comprising toxic agents operably linked to a pathogen-specific or tissue-specific promoter, wherein the toxic agent is constructed into a sequence encoding a ribozyme cassette comprising one or more autocatalytically cleaving ribozyme sequences, vectors comprising such compositions, or virions comprising such compositions." Applicants note that the indication that the claims are free of the prior art is not limited to any species of toxic agent or promoter. Accordingly, Applicants interpret this to mean the genera of toxic agents and promoters have been searched, examined, and found to be free of the prior art.

Double Patenting Rejections

The Examiner rejected claim 1 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3-5 of U.S. Patent No. 6,271,359. Applicants acknowledge this obviousness-type double patenting rejection, and will consider filing a terminal disclaimer upon notification of allowable subject matter.

Rejections under 35 U.S.C. § 112, first paragraph

The Examiner rejected claims 1-7, 10-11, 13-16 and 18-33 under 35 U.S.C. § 112, first paragraph, alleging that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Specifically, on page 9 of the Office Action, the Examiner cited a number of target sequences disclosed in the specification but alleged that the specification does not teach the target gene nucleic acid sequences. In addition, the Examiner alleged that that a representative number of species of the genus of toxic agent sequences has not been provided.

Applicants respectfully disagree. Claim 1 recites a recombinant nucleic acid containing, *inter alia*, a nucleotide sequence encoding one or more toxic agents operably linked to a

pathogen-specific or tissue-specific promoter. Applicants' specification discloses that the toxic agent can be a toxic gene product such as *ccdB, kid, parE, doc, higB, chpAK, chpBK, kicB, srnB', flmA, relF, gef, kilA, kilB, kilC, kilE, traL, traE, sigB, hok, pemK, lysostaphin,* and *kikA*. See, e.g., page 13, lines 16-20. In addition, Applicants' specification discloses that the toxic agent can target an antidote such as *ccdA, kis, pemI, parD, phd, higA, chpAI, chpBI, kicA, soc, srnC, flmB, pndB, sof, korA, korB, korC, korD, korE,* and *korF*. See, e.g., page 13, lines 20-22. A person having ordinary skill in the art at the time Applicants' specification was filed would have been well aware of these toxic agents and targets as well as their nucleic acid sequences as evidenced by the Holcik and Iyer review article (*Microbiology*, 143:3403-3416 (1997)). See, e.g., Table 1 on page 3413. As noted above, a copy of this publication is attached hereto and will be submitted with an Information Disclosure Statement. In fact, a person having ordinary skill in the art reading Applicants' specification would have appreciated that the nucleic acid sequences of these well known toxic agents and targets not only are available from original research publications such as those cited in the Holcik and Iyer review article but also are conveniently compiled in GenBank®. Thus, Applicants' specification adequately describes the presently claimed subject matter.

In light of the above, Applicants respectfully request withdrawal of the rejections of claims 1-7, 10-11, 13-16 and 18-33 under 35 U.S.C. §112, first paragraph.

The Examiner also rejected claim 30 under 35 U.S.C. § 112, first paragraph, alleging that the specification, while being enabling for compositions comprising the modified virion of claim 19 and a pharmaceutically acceptable carrier, does not reasonably provide enablement for pharmaceutical compositions comprising the modified virion of claim 19 and a pharmaceutically acceptable carrier.

Applicants respectfully disagree. To further prosecution, however, claim 30 has been amended herein to recite a composition as suggested by the Examiner. In light of this amendment, Applicants respectfully request withdrawal of the rejection of claim 30 under 35 U.S.C. §112, first paragraph.

CONCLUSION

Applicants submit that claims 1-7, 10, 11, 13-16, 18-24, and 30-33 are in condition for allowance, which action is requested. The Examiner is invited to call the undersigned agent at the telephone number below if such will advance prosecution of this application.